<u>**Amendments to the Claims**</u>:

This listing of claims will replace all prior versions, and listings, of claims in the application.

<u>**Listing of Claims**</u>:

1. (*Currently Amended*) A method ~~for~~ of applying an automatic image enhancement algorithm to an input digital image[[s]] represented in an ~~different~~ input color space[[s]], comprising:

a) identifying the input color space of [[an]] the input digital image;

b) applying a color space transformation to the entire input digital image represented in the input color space to form a corresponding input digital image in a reference color space, which is different from the input color space;

c) automatically adjusting one or more algorithm parameters of the automatic image enhancement algorithm in response to the identified input color space of the input digital image; and

d) automatically applying the automatic image enhancement algorithm without user intervention using the one or more adjusted algorithm parameters to the entire corresponding input digital image in the reference color space to produce an enhanced digital image in the reference color space;

wherein the adjustment of the automatic image enhancement algorithm is performed separate from and after the application of the color space transformation.

2. (*Currently Amended*) The method according to claim 1, wherein the reference color space is an extended color gamut color space.

3. (*Currently Amended*) The method according to claim 1, wherein the input color space is a limited color gamut color space.

4. (*Currently Amended*) The method according to claim 1, wherein the reference color space represents an estimate of the colors in an original scene.

5. (*Currently Amended*) The method according to claim 4, wherein the input color space represents the colors of a photographic negative, and the color space transformation is an inverse film sensitometry transformation.

6. (*Currently Amended*) The method according to claim 4, wherein the input color space is a video RGB color space, and wherein the color space transformation is substantially an inverse of a color adjustment function used to map original scene colors to corresponding colors appropriate for display on a video display.

7. (*Currently Amended*) The method according to claim 6, wherein the inverse color adjustment function produces corresponding input digital images in the reference color space having reduced highlight color saturation for highlight color values compared with corresponding original scene colors.

8. (*Currently Amended*) The method according to claim 1, further including the step of applying an output color space transformation to the output digital image in the reference color space to form a corresponding output digital image in an output color space.

9. (*Currently Amended*) The method according to claim 8, wherein the output color space is the same as the input color space.

10. (*Currently Amended*) The method according to claim 1, wherein the automatic image enhancement algorithm is an adaptive tone scale enhancement algorithm.

11. (*Currently Amended*) The method according to claim 1, wherein the automatic image enhancement algorithm is a color enhancement algorithm.

12. (*Currently Amended*) The method according to claim 1, wherein the automatic image enhancement algorithm is a noise reduction algorithm.

13. (*Currently Amended*) The method according to claim 1, wherein the automatic image enhancement algorithm is a sharpening algorithm.

14. (*Currently Amended*) The method according to claim 1, wherein a sequence of automatic image enhancement algorithms are applied to the corresponding input digital image in the reference color space.

15. (*Currently Amended*) The method according to claim 1, wherein the one or more algorithm parameters control whether or not a component of the automatic image enhancement algorithm is applied.

16. (*Currently Amended*) A method for of applying an automatic image enhancement algorithm to an input digital image[[s]] represented in different an input color space[[s]], the method comprising:

a) identifying the input color space of [[an]] the input digital image;

b) applying a color space transformation to the entire input digital image represented in the input color space to form a corresponding input digital image in a reference color space, which is different from the input color space;

c) automatically selecting [[a]] one version among a plurality versions of the automatic image enhancement algorithm according to the identified input color space; and

d) automatically applying the selected version of the automatic image enhancement algorithm without user intervention to the entire corresponding input digital image in the reference color space to produce an enhanced digital image in the reference color space,

wherein the selection of the automatic image enhancement algorithm is performed separate from and after the application of the color space transformation.

17. (*Currently Amended*) The method according to claim 16, where the reference color space is an extended color gamut color space.

18. (*Currently Amended*) The method according to claim 16, where the input color space is a limited color gamut color space.

19. (*Currently Amended*) The method according to claim 16, where the reference color space represents an estimate of the colors in an original scene.

20. (*Currently Amended*) The method according to claim 19, where the input color space represents the colors of a photographic negative, and the color space transformation is an inverse film sensitometry transformation.

21. (*Currently Amended*) The method according to claim 19, where the input color space is a video RGB color space, and wherein the color space transformation is substantially an inverse of a color adjustment function used to map original scene colors to corresponding colors appropriate for display on a video display.

22. (*Currently Amended*) The method according to claim 21, where the inverse color adjustment function produces corresponding input digital images in the reference color space having reduced highlight color saturation for highlight color values compared with corresponding original scene colors.

23. (*Currently Amended*) The method according to claim 16, further including the step of applying an output color space transformation to the output digital image in the reference color space to form a corresponding output digital image in an output color space.

24. (*Currently Amended*) The method according to claim 16, wherein the selected version of the automatic image enhancement algorithm is an adaptive tone scale enhancement algorithm.

25. (*Currently Amended*) The method according to claim 16, wherein the selected version of the automatic image enhancement algorithm is a color enhancement algorithm.

26. (*Currently Amended*) The method according to claim 16, wherein the selected version of the automatic image enhancement algorithm is a noise reduction algorithm.

27. (*Currently Amended*) The method according to claim 16, wherein the selected version of the automatic image enhancement algorithm is a sharpening algorithm.